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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,496	11/20/2001	David J. Anderson	CTCH-P01-007	8536

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FISH & NEAVE IP GROUP  
ROPES & GRAY LLP  
ONE INTERNATIONAL PLACE  
BOSTON, MA 02110-2624

EXAMINER
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WOITACH, JOSEPH T

ART UNIT	PAPER NUMBER
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1632

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/988,496

Applicant(s)

ANDERSON ET AL.

Examiner

Joseph T. Voitach

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 39,73,89,90,93 and 95-97 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39,73,89,90,93 and 95-97 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/20/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This application filed November 20, 2001, claims benefit to provisional application 60/252,009, filed November 20, 2000.

Applicants' amendment filed January 23, 2006 has been received and entered. Claims 1-38, 40-72, 74-78, 91, 92 and 94 have been cancelled. Claims 39, 73, 89, 90, 93, 95-97 are pending.

### ***Election/Restriction***

Applicant's election with traverse of Group V in the reply filed on October 3, 2003 was acknowledged. No new arguments in traverse of the requirement have been provided by Applicants.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Claims 39, 73, 89, 90, 93, 95-97 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16, 18-24 of U.S. Patent No. 6,887,674 B1 (issued May 3, 2005).

Applicants summarize the basis of the Examiners rejection and argue that the instant methods are drawn to assessing an effect of an agent on arterial smooth muscle cells, rather than identifying agents that affect EphrinB2 activity as set forth in '674. See Applicants' amendment, page 2. Applicants' arguments have been fully considered, but not found persuasive.

While the present claims state in the preamble that the method is assessing an effect in smooth muscle cells, the specific method steps clearly set forth that the affect is assaying Ephrin B2 gene activity (see (i)-(iii) of claim 39). With respect to the expression or role of Ephrin B2 in smooth muscle cells, clearly the methods of '674 encompass the use of any cell, and dependent claims set forth cells of the artery and veins, and specifically state to look at the affect of the phenotype of the cell (see claim 17 for example). The specification provides further support for the role of Ephrin B2 expression in smooth muscle cells in the characterization of embryonic development (see working example 7 that discloses a role in smooth muscle cells). Applicants' arguments have been fully considered, but not found persuasive because the claims of '674 would encompass practicing the instantly claimed methods, and given the guidance of the specification of '674, arterial smooth muscle cells would have been anticipated because of the role in development.

For the reasons above and of record, the rejection is maintained.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(f) he did not himself invent the subject matter sought to be patented.

Claims 39, 73, 89, 90, 93, 95-97 stand rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter.

Applicants summarize the basis of the rejection and argue that the claims are patentably distinct from those of '674. See Applicants' amendment, page 3. Applicants' arguments have been fully considered, but not found persuasive.

As reasoned above, while the present claims state in the preamble that the method is assessing an effect in smooth muscle cells, the specific method steps clearly set forth that the affect is assaying Ephrin B2 gene activity (see (i)-(iii) of claim 39). Further, the methods of '674 encompass the use of any cell, and dependent claims set forth cells of the artery and veins, and specifically state to look at the affect of the phenotype of the cell (see claim 17 for example), and support for the role of Ephrin B2 expression in smooth muscle cells in the characterization of embryonic development (see working examples). Applicants' arguments have been fully considered, but not found persuasive because the claims of '674 would encompass practicing the instantly claimed methods, and given the guidance of the specification of '674, arterial smooth muscle cells would have been anticipated because of the role in development.

Claims 39, 73, 89, 90, 93, 95-97 stand rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,887,674 B1.

Applicants summarize the requirements of making a 102 type rejection and the basis of the rejection (pages 3-4) and argue that the claims are patentably distinct from those of '674. Further, there is not motivation to use smooth muscle cells in the assay as claimed. See Applicants' amendment, pages 3-4. Applicants' arguments have been fully considered, but not found persuasive.

As discussed above, the disclosure of '674 provides for and claims an assay in a cell in which Ephrin B2 gene activity is assessed. To assess the activity, a cell is chosen that expresses Ephrin B2, and the change in this activity as demonstrated by the cell phenotype is observed. Given the working examples of '674, and the role of Ephrin B2 in smooth muscle development, it is found that '674 provides adequate support for using a smooth muscle cell type in the claimed assay.

It is noted that the instant application and that of '674 is very similar and the working examples 1-13 are identical. It is appreciated that the instant application provides additional working examples, and provides a further characterization of the expression of Ephrin B2 in arterial structure and development, in particular in smooth muscle cells. However, it appears that '674 demonstrates that expression was in smooth muscle cells, at the least as evidenced by its role in development demonstrated in Example 7.

As noted previously, the applied reference has two common inventors, David J. Anderson and Hai U. Wang, with the instant application. Based upon the earlier effective U.S. filing date

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of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

### ***Conclusion***

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Woitach whose telephone number is (571) 272-0739.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached at (571) 272-0735.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group analyst Dianiece Jacobs whose telephone number is (571) 272-0532.

Joseph T. Voitach

Joe Voitach  
AU 1632